No. 136

Teleton

SERVICE MANUAL

20 Watt Solid State Stereo Hi-Fi Amplifier

MODEL GA-203

TELETON Electro GmbH. + Co. KG
4000 Düsseldorf-Rath Oberhausener Str. 17
Tel. (0211) 65 30 81 TX 858 6768

TELETON Electro (UK) Co., Ltd.
Teleton House, Waterhouse Lane,
Chelmsford/Essex
Tel. Chelmsford 62 442 TX 93 338

Technical Service Organization
Waterhouse Lane, Chelmsford, Essex.
Tel. 0245-54621 TX 99338

TELETON N. V.
2200 Borgerhout Belgium
Prins-Leopold-Straat 28
Tel. 03/361045 TX 32508
03/357670

TELETON NEDERLAND
Nieuwe Herengracht 119 Amsterdam
Tel. 24 83 81

TELETON Electro (France) S.a.r.l.
21 rue Paul Lafargue 94 Kremlin-Bicêtre
Tel. 726 4091

TRANSACO AG
Kanzleistrasse 126 8004 Zürich
Tel. 39 45 60/23 50 40 TX 52 362

ALIGNMENT INSTRUCTION

Equipment required : (See Fig. 1 and 2)
Signal Generator (SG) : Output 1 kHz
with attenuator approx. 10mV – 500mV
R 10 kohm distortion 0.1%
Oscilloscope (OSC) : normal
Amperemeter (AM) : DC 0–100mA
Volt meter (VM) : DC 0–50V
Dummy load (R) : 8 ohm 5% 20W
For further checks
Distortion Meter (DM)
Audio-Voltmeter (AVM)

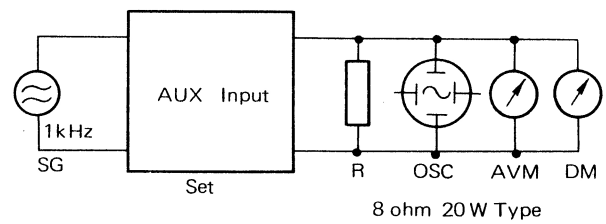


Fig. 1

STEP	OUTPUT	ADJUST	ADJUST FOR
1	0	VR601–L or VR602–R	Vc = 1/2 Vcc
2	0	VR603–L or VR604–R	IC = 17 mA
3	19–21W	VR601–L or VR602–R	Symmetric sine wave as shown in Fig. 2
4	just 20W	VR101 VR102	VU Meter 0dB

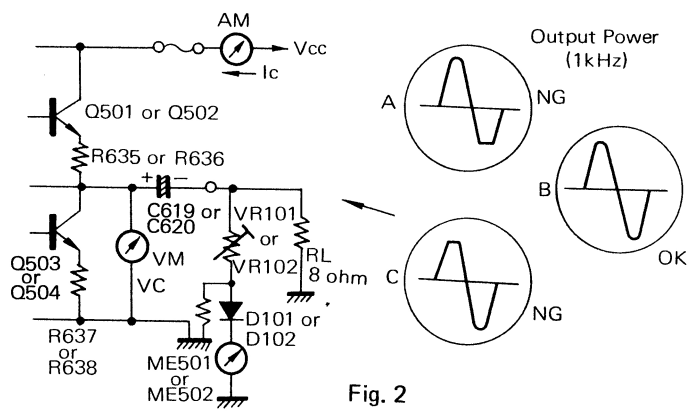
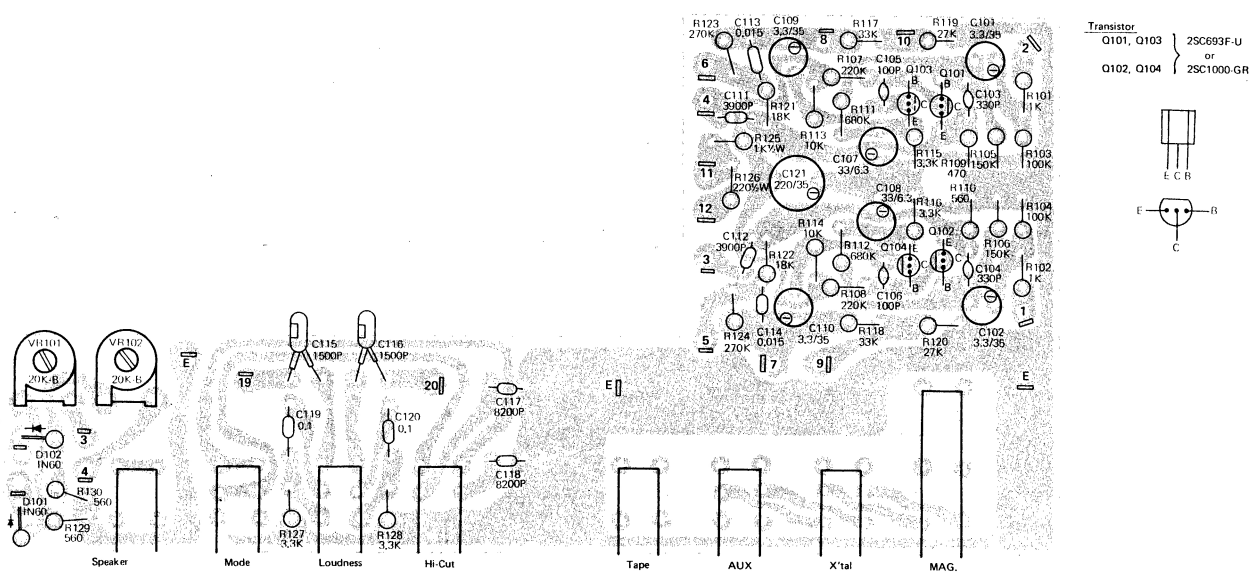


Fig. 2

Equalizer Amp P. C. Board(EQA–400)



Tone Control Amp. P. C. Board(TOA–400)

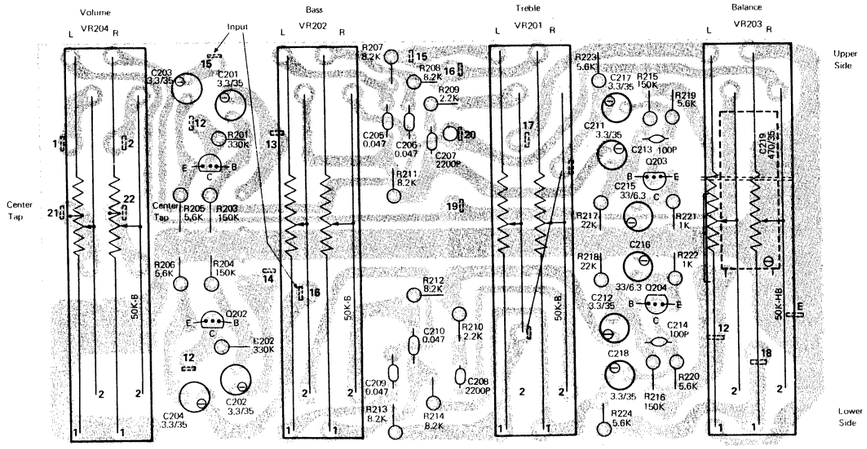
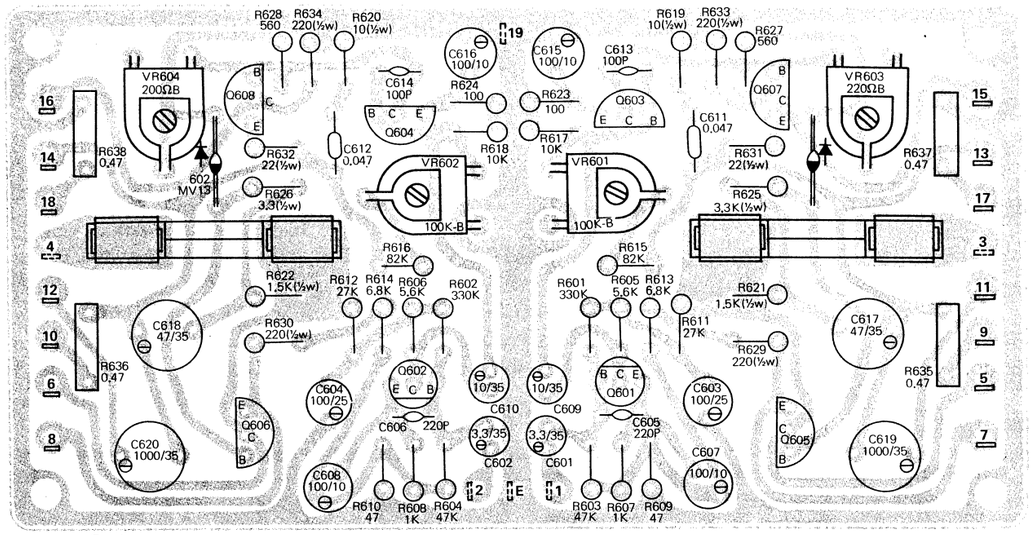


Fig.4

MAIN Amp. P. C. Boad(MA–400)



Transistor

Q603, Q604, Q605, Q606	2SC1384 Q/R
Q607, Q608	2SA684 Q/R
Q601, Q602	2SC536F-W or 2SC732GR

Fig. 5

Power Supply P. C. Board(PS-400)

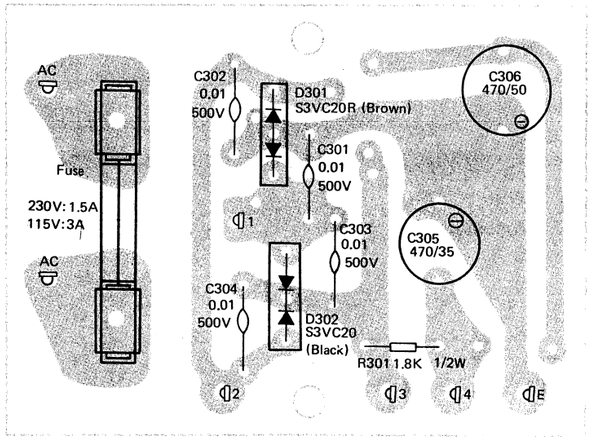
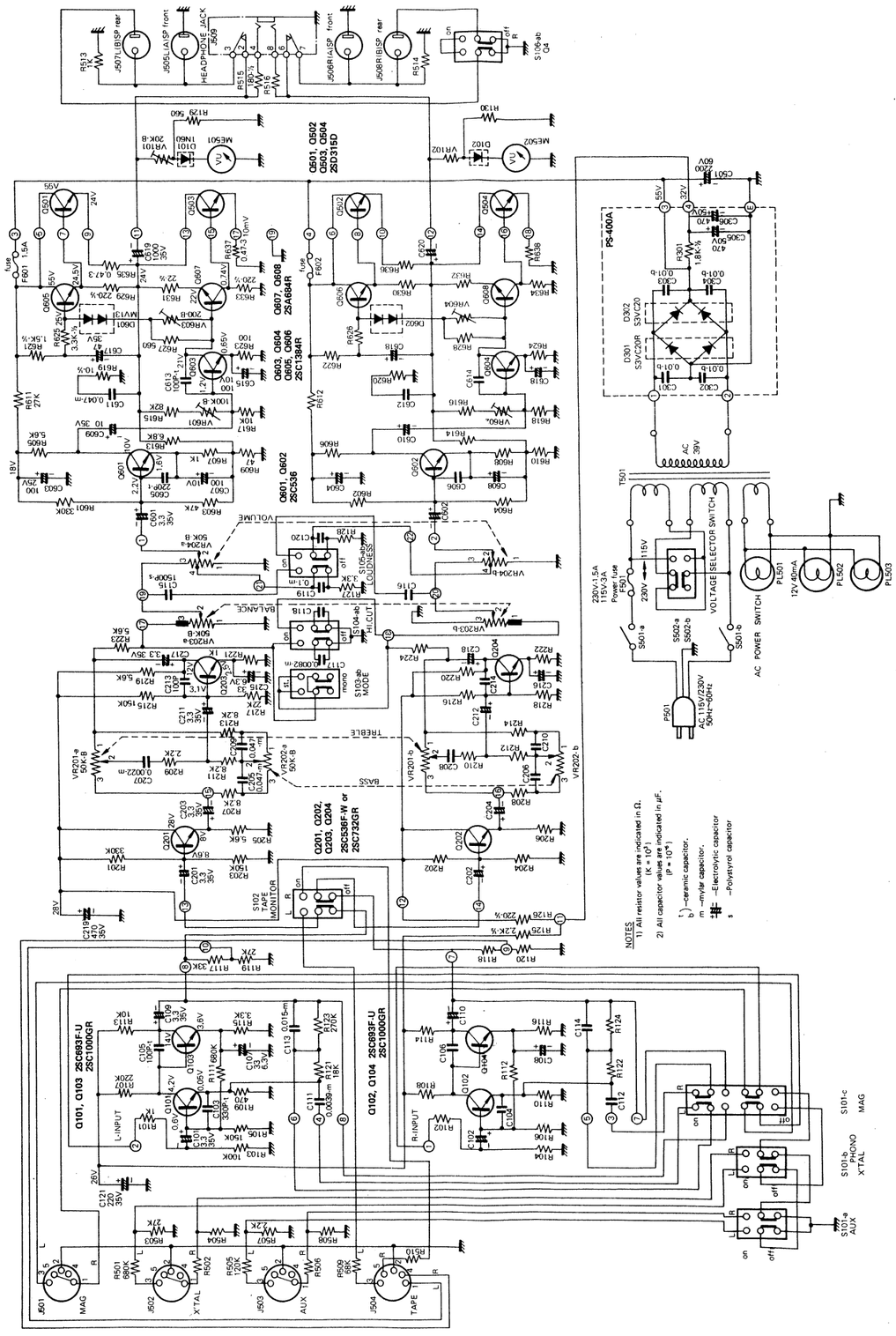
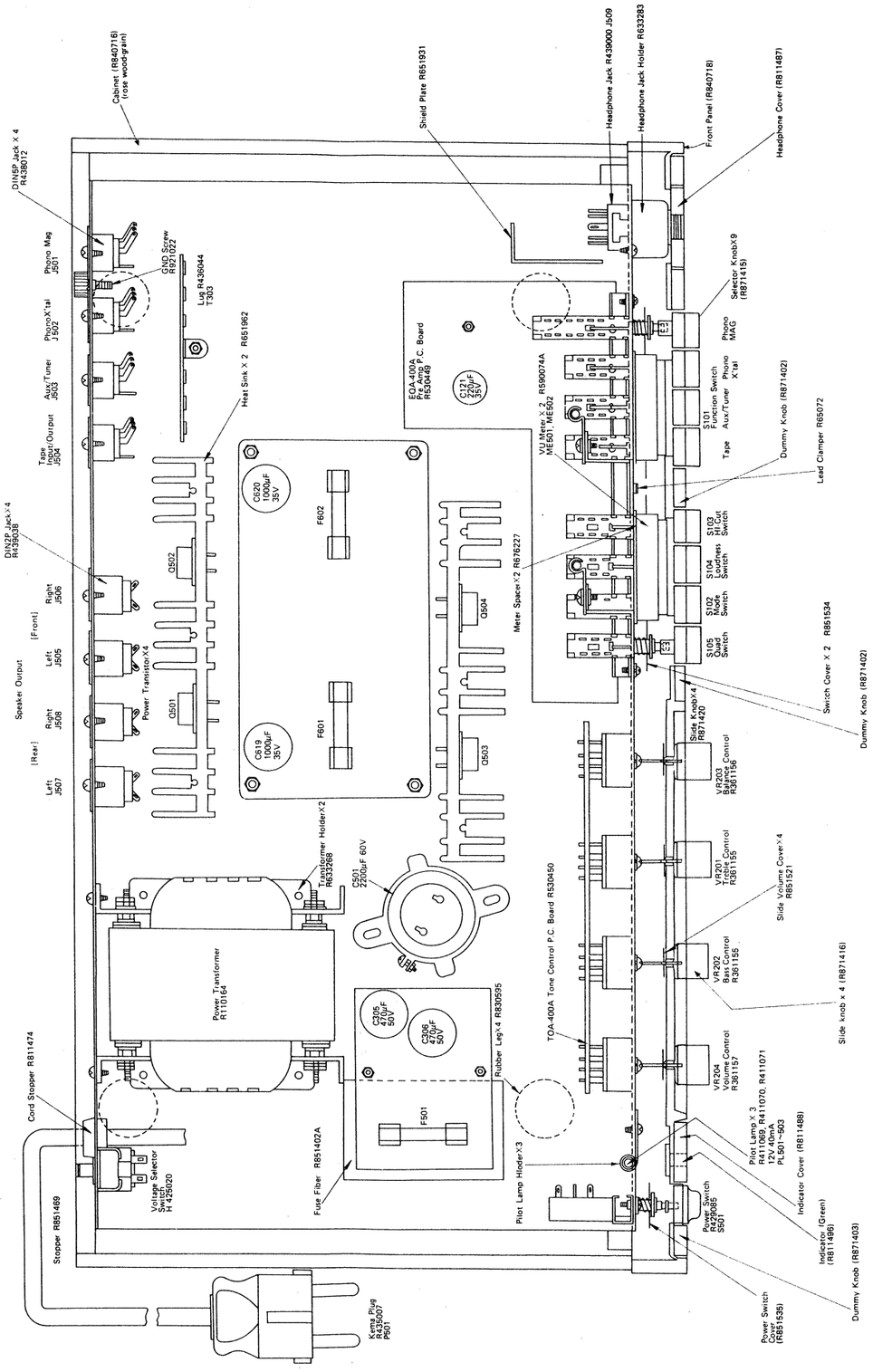


Fig. 6

SCHEMATIC DIAGRAM



COMPONENT DIAGRAM(TOP VIEW)



SPARE PARTS LIST

(Standard Parts Resitors, Capacitors are not listed here.)

Ref. No.	Part No.	Description
A. Cabinet		
	R840718	Front Panel
	R637041	Panel Plate
	R820248	Control Panel
	R811487	Head Phone Cover
	R871402	Knob No. 402 (Dummy Knob)
	R871415	Knob No. 415 (Selector Knob)
	R871416	Knob No. 416 (Control Knob)
	R811488	Indicator Cover
	R871403	Knob No. 403 (Dummy Knob)
	R811496	Indicator
	R851521	Slide Switch Cover
	R851534	Switch Cover
	R851535	Switch Cover
	R840716	Cabinet
	R830555	Foot
	H650299	Stopper Washer
B. Chassis Parts		
	R610404	Chassis
S501	R429085	Power Switch (Push Type)
PL501	R411069	Pilot Lamp 12V 40mA (Power)
		Pilot Lamp Holder
ME501	R590074A	Output Meter 650Ω 260μA
ME502	R676227	Meter Spacer
PL502	R411070	Pilot Lamp 12V 40mA (Meter)
PL503	R411071	Pilot Lamp 12V 40mA (Meter)
	R65072	Lead Clamper
	R676202A	Spacer (height 6.5mm)
	R633283	Headphone Jack Holder
	R439000	Headphone Jack
	R651955	Panel Stopper
	H810231	Spacer (height 12mm)
	R851402A	Fuse Fiber
	R110164	Power Transformer
	R633268	Transformer Holder
	R436044	Lug T-303 (6P)
	R651931	Shield Plate
	R651962	Heat Sink
	R811474	Cord Stopper SR-5N-4
	H425020	Slide Switch
	R851469	Slide Switch Stopper B
J505~508	R439038	DIN 2P Jack
J501~504	R438012	DIN 5P Jack
	R921022	GMD Screw

Ref. No.	Part No.	Description
C. Equalizer Amplifier P. C. Board (EQA-400) (See Fig. 3)		
	R530449	Equalizer Amplifier P. C. Board (without component)
	R436031	P. C. Board Terminal
S101~106	R429090	Push Switch
Q101~104		Transistor 2SC693Fμ or 2SC1000 2SC1000 GR
D101, 102		Diode IN60
VR101, 102	R382034	Semi-Fixed Resistor B 20kΩ
D. Tone Control Amplifier P. C. Board (TOA-400) (See Fig. 4)		
	R530450	Tone Control Amplifier P. C. Board (without component)
Q201~204		Transistor 2SC536F or 2SC732-GR
VR201, 202	R361155	B-50kΩ (Tone Control)
VR203	R361156	HB-50kΩ (Balance Control)
VR204	R361157	B-50kΩ with Center Tap (Volume Control)
E. Main Amplifier P. C. Board (MA-400) See Fig. 5)		
	R530462	Main Amplifier P. C. Board (without component)
Q601, 602		Transistor 2SC536-F-W or 2SC732-GR
Q603~606		Transistor 2SC1384-Q/R
Q607, 608		Transistor 2SA 684-Q/R
D601, 602		Silicon Varistor Diode MV-13
VR603, 604	R382042	Semi-Fixed Resistor B-200Ω
VR601, 602	R382030	Semi-Fixed Resistor B-100kΩ
	H430028	P. C. Board Fuse Holder
F601~602	R412006	Fuse 1.5A
F. Power Supply P. C. Board (PS-400) (See Fig. 6)		
	R530463	Power Supply P. C. Board (without component)
	R430028	P. C. Board Fuse Holder
F501	R412008	Fuse 3A for AC Line Voltage 115V
R502	R412006	Fuse 1.5A for AC Line Voltage 230V
D301		Silicon Rectifier Diode Stack Type 53VC20R (Brown)
D302		Silicon Rectifier Diode Stack Type 53VC 20 (Black)